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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,910	06/21/2001	Shahryar Ghandeharizadeh	29250-000538	4771

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EXAMINER	
FOX, BRYAN J	

ART UNIT	PAPER NUMBER
2686	

DATE MAILED: 12/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	09/884,910	GHANDEHARIZADEH ET AL.	
	Examiner	Art Unit	
	Bryan J Fox	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2,4-6,8 and 10-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2,4-6,8 and 10-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Allowable Subject Matter

The indicated allowability of claims 3 and 9 is withdrawn in view of the newly discovered reference(s) to Sawyer et al (US005307400A). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2, 5, 8, 11, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hogan (US006442393B1) in view of Zadeh et al. (US006516195B1).

Regarding claim 13, Hogan discloses a system of mobile locating and power control for network optimization where the system monitors the power control commands to provide an indication of the quality of a signal and maps out the signal qualities of the system and comprises the steps of: providing at least one parameter

indicative of a signal quality associated with a location of a mobile station, which reads on the claimed "continuously monitoring radio signals associated with the established call", comparing said parameter with a criteria to provide a comparison result and initiating a position request based on the result of said comparison, which reads on the claimed "determining if a parameter associated with continuously monitored radio signal falls below a threshold" and "providing information associated with the location of the mobile terminal if the parameter falls below the threshold" (see column 4, lines 22-40) While Hogan it appears the monitoring of signals is done while a call is in process and not while a mobile unit is idle, he fails to specifically point out the receiving a connect message from a mobile terminal to establish a call.

In a similar field of endeavor, Zadeh et al. discloses a method of optimizing an telecommunications network where a predefined event, such as a call set-up event, triggers a positioning request and stores the information in a database for subsequent analysis (see column 3, lines 3-18).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Hogan with Zadeh et al. to include the above call set-up trigger to trigger the continuous monitoring disclosed by Hogan in order to avoid using system resources monitoring idle phones where not as much information may be obtained. The above combination of Hogan and Zadeh et al fails to expressly disclose discarding the updated information associated with the location of the mobile terminal in response to the normal termination of the call.

In a similar field of endeavor, Sawyer et al discloses deleting an indication of a temporary location when the mobile phone ends the call from within the visited cellular system (see column 5, lines 16-32).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Hogan and Zadeh et al with Sawyer et al to include the above deleting of location information when a mobile phone call ends in order to save memory space.

Regarding claim 14, Hogan discloses a wireless system, which reads on the claimed "wireless network system," that includes an MSC (see figure 1), which reads on the claimed "mobile switching center (MSC)." The system of mobile locating and power control for network optimization where the system monitors the power control commands to provide an indication of the quality of a signal and maps out the signal qualities of the system and comprises the steps of: providing at least one parameter indicative of a signal quality associated with a location of a mobile station (see column 4, lines 22-40), which reads on the claimed "continuously monitor radio signals associated with the established call", comparing said parameter with a criteria to provide a comparison result and initiating a position request based on the result of said comparison (see column 4, lines 22-40), which reads on the claimed "determine if a parameter associated with continuously monitored radio signal falls below a threshold," and "provide information associated with the location of the mobile terminal if the parameter falls below the threshold." The location data is transmitted form the BSC to the OMS to construct a map (see column 7, lines 47-54), which reads on the claimed

"Position Database (PDB) storing the information associated with the mobile terminal." The steps are repeated to construct a map of signal qualities (see column 4, lines 22-40 and figure 3), which reads on the claimed "continuously update the information associated with the location of the mobile terminal." While it appears that Hogan discloses the monitoring of signals is done while a call is in process and not while a mobile unit is idle, he fails to specifically point out the receiving a connect message from a mobile terminal to establish a call.

In a similar field of endeavor, Zadeh et al. discloses a method of optimizing an telecommunications network where a predefined event, such as a call set-up event, triggers a positioning request and stores the information in a database for subsequent analysis (see column 3, lines 3-18).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Hogan with Zadeh et al. to include the above call set-up trigger to trigger the continuous monitoring disclosed by Hogan in order to avoid using system resources monitoring idle phones where not as much information may be obtained. The above combination of Hogan and Zadeh et al fails to expressly disclose discarding the updated information associated with the location of the mobile terminal in response to the normal termination of the call.

In a similar field of endeavor, Sawyer et al discloses deleting an indication of a temporary location when the mobile phone ends the call from within the visited cellular system (see column 5, lines 16-32).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Hogan and Zadeh et al with Sawyer et al to include the above deleting of location information when a mobile phone call ends in order to save memory space.

Regarding claim 2, Hogan discloses a system of mobile locating and power control for network optimization where the system monitors the power control commands to provide an indication of the quality of a signal and maps out the signal qualities of the system and comprises the steps of: providing at least one parameter indicative of a signal quality associated with a location of a mobile station, which reads on the claimed "continuously monitoring of the radio signals." Hogan fails to expressly disclose sending a trigger message responsive to receiving a connect message.

In a similar field of endeavor, Zadeh et al. discloses the use of a trigger message when a call is set-up (see Zadeh et al. column 2, lines 55-66).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Hogan with Zadeh et al. to include the above call set-up trigger to trigger the continuous monitoring disclosed by Hogan in order to avoid using system resources monitoring idle phones where not as much information may be obtained. The above combination of Hogan and Zadeh et al fails to expressly disclose discarding the updated information associated with the location of the mobile terminal in response to the normal termination of the call.

In a similar field of endeavor, Sawyer et al discloses deleting an indication of a temporary location when the mobile phone ends the call from within the visited cellular system (see column 5, lines 16-32).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Hogan and Zadeh et al with Sawyer et al to include the above deleting of location information when a mobile phone call ends in order to save memory space.

Regarding claim 5, the combination of Hogan and Zadeh et al, and Sawyer et al discloses the use of a GPS receiver to determine the location (see Hogan figure 1) and GPS receivers give location information in terms of Longitude and Latitude.

Regarding claim 8, the combination of Hogan discloses the continuous monitoring of a signal (see column 4, lines 22-40 and figure 2). Hogan fails to expressly disclose receiving a connect message and outputting a trigger message in response thereto.

In a similar field of endeavor, Zadeh et al. discloses a system where a call set-up triggers the continuous monitoring of the call, and it is further disclosed that the invention may be implemented by computer and stored within computer memory not necessarily in a mobile terminal, but instead within a base station or a central broadcasting center (see Zadeh et al. column 7 line 60 – column 8, line 2), which reads on the claimed Position Control Center in the MSC.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Hogan with Zadeh et al. to include the above call set-up trigger

to trigger the continuous monitoring disclosed by Hogan in order to avoid using system resources monitoring idle phones where not as much information may be obtained. The above combination of Hogan and Zadeh et al fails to expressly disclose discarding the updated information associated with the location of the mobile terminal in response to the normal termination of the call.

In a similar field of endeavor, Sawyer et al discloses deleting an indication of a temporary location when the mobile phone ends the call from within the visited cellular system (see column 5, lines 16-32).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Hogan and Zadeh et al with Sawyer et al to include the above deleting of location information when a mobile phone call ends in order to save memory space.

Regarding claim 11, the combination of Hogan, Zadeh et al and Sawyer et al discloses the use of a GPS receiver to determine the location (see Hogan figure 1) and GPS receivers give location information in terms of Longitude and Latitude.

Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hogan in view of Zadeh et al and Sawyer et al as applied to claims 13 and 14 above, and further in view of O'Donnell (US006266514B1).

Regarding claims 4 and 10, the combination of Hogan, Zadeh et al and Sawyer et al discloses the use of various thresholds, however, the combination of Hogan,

Zadeh et al and Sawyer et al fails to expressly disclose the use of a zero signal strength level threshold.

In a similar field of endeavor, O'Donnell discloses the use of a signal strength threshold to trigger a positioning information request to map out areas of poor coverage in a network (see column 2, line 64 – column 3, line 11). While a specific number is not disclosed, zero would be an obvious choice.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Hogan, Zadeh et al and Sawyer et al with O'Donnell to include the above signal strength threshold disclosed in order to provide the locations where no signal is present.

Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hogan in view of Zadeh et al and Sawyer et al as applied to claims 13 and 14 above, and further in view of Rowles et al.

Regarding claims 6 and 12, the combination of Hogan, Zadeh et al and Sawyer et al does strongly suggest associating the records with the time that they occur (see Zadeh et al, column 8, lines 55-59 and figure 3), however it is not expressly disclosed that a time stamp would be added to the record.

In a similar field of endeavor, Rowels et al. also discloses system for monitoring and tracking system performance where a time marker is associated with the occurrence of each fault when it is recorded (see column 2, line 61).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Hogan, Zadeh et al and Sawyer et al to include the above time stamp to assist in troubleshooting the cause of a problem as it may be associated with the amount of traffic or another time-related issue.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan J Fox whose telephone number is (703) 305-8994. The examiner can normally be reached on Monday through Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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